

GARDENING**Some Gardening Troubles THE REMEDIES****SOUTH MANCHESTER.**

Complaints have been made recently of insect damage to garden peas. In some instances the offenders appear to have been the larvæ of the pea moth (*Laspeyresia nigricana*). The moth itself is small and greyish-brown in colour. It begins to emerge from its pupa state in the soil about the middle of June, and within the next few weeks the female starts laying her eggs on the leaves and stalks of the pea plants. In about a week the larva hatches out, enters the nearest pod, feeds on the peas, and ultimately eats its way out, spins its cocoon in the soil, and remains there until in the following spring it is transformed into an adult moth.

Gardeners who grow peas should certainly know how to prevent its ravages, for it is one of the worst of their scourges. D. W. Wright and Q. A. Geering, of the School of Agriculture at Cambridge, tell us in the journal of the Ministry of Agriculture that in samples taken from a number of picked fields last year the number of larvæ remaining in the unpicked pods varied from 7,000 to 67,000 to the acre, and that in fields where pods were harvested dry for seed they numbered no fewer than 300,000 to 685,000 to the acre.

Although the moth has natural enemies in the forms of three species of parasites, they are not numerous and effective enough to cope with the havoc, and consequently for about half a century experiments have been made to find a really effective remedy. In the article referred to the writers give the results of investigations into the use of spraying with D.D.T., and recommend the use of an emulsion of one-half per cent. The sprayer should be one which gives a fine, mist-like dispersion, with the object of leaving a deposit of the chemical on the foliage and pods, and should be applied before the hatching-out of the larvæ, or about a week or ten days after the first flowers have begun to open on the crop. This may prove satisfactory, but as the plant continues to grow and produce parts untouched by the first spraying a second one a fortnight later is recommended.

Another question which is of general interest, because most growers of

tomatoes have experienced the trouble, concerns the uneven ripening of the fruit both in and out of doors. One correspondent has complained that although he left some of the fruit on the plants last autumn long after they should have ripened, patches of green remained and the flesh about them remained hard when the rest was soft. There are two distinct defects to which this description might apply known as "green back" and "blotchy ripening." The former term is used when the top part of the fruit nearest the stalk remains green and hard after the rest has turned red. Under glass this happens when the fruit is exposed to too much direct hot sunshine. It can be avoided by giving the glass a wash of lime, flour and water, or one of the more durable proprietary preparations put on the market for the purpose. When it happens to tomatoes grown in the open it is usually caused by a shortage of potash in the soil. "Blotchy ripening" is applied when the fruit reveals dark green blotches elsewhere than at the stalk end. This also may be due to a deficiency of potash in the soil, or to too dry a soil or a diseased root system, each of which, of course, would prevent the plant from absorbing the potash it needs.

In the last week or two mildew has been appearing on many rambler roses in this district, including American Pillar, Excelsa, Hiawatha, and Lady Godiva, which have been making extraordinarily good growth and producing unusually large crops of flower buds. Where the attack is a small one it may be dealt with by a dusting of flowers of sulphur, but where it is extensive an easier and far more effective method is to spray the plants—and others near to them—with a solution of liver of sulphur, lime sulphur, Bordeaux mixture, one of the colloidal copper compounds, or, simplest of all, perhaps, a solution of half an ounce of bicarbonate of soda to five gallons of water, which is said to be the Russian method of destroying the fungus. One or other of these remedies should certainly be used as soon as possible after the mildew is seen, because if left to do its worst its spores are apt to spread to other plants in the vicinity and to perpetuate the trouble. B. L.